United States District Court,
E.D. Texas, Marshall Division.

**FOUNDRY NETWORKS,**
Plaintiff.
v.
**LUCENT TECHNOLOGIES, INC,**
Defendant.

Civil Action No. 2-04-CV-40 (TJW)

**May 24, 2005.**

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## *MEMORANDUM OPINION AND ORDER*

T. JOHN WARD**, District Judge.**

After considering the submissions and the arguments of counsel, the court issues the following order concerning the claim construction issues:

## I. Introduction

The plaintiff, Foundry Networks, Inc. ("Foundry"), alleges that the defendant, Lucent Technologies, Inc. ("Lucent"), infringes U.S. Patent No. 6,118,864 ("the '864 patent"). The '864 patent is titled "System and Method for Providing Communication on a Wide Area Network." The invention disclosed in the '864 patent generally relates to providing private branch exchange services on a wide area network. In its counterclaim, Lucent accuses Foundry of infringing U.S. Patent No. 5,649,131 ("the '131 patent"). The '131 patent is titled "Communications Protocol," and the claimed invention generally relates to a protocol for exchanging messages between a transaction processor and a computer terminal. Both the '864 patent and the '131 patent

have been asserted by the parties in other cases. FN1

FN1. Foundry asserted the '864 patent against Nortel Networks, Inc. in a case filed in the Northern District of California ("the Nortel case"). The Nortel case has since settled. Lucent has asserted the '131 patent against Gateway, Inc. and others in a consolidated action ("the Gateway action"), which was filed in the Southern District of California. The Gateway action is currently pending and is in fact discovery. Several of the terms in the patents-in-suit were construed by the courts in the respective cases.

## II. Law Governing Claim Construction

"A claim in a patent provides the metes and bounds of the right which the patent confers on the patentee to exclude others from making, using or selling the protected invention." Burke, Inc. v. Bruno Indep. Living Aids, Inc., 183 F.3d 1334, 1340 (Fed.Cir.1999). Claim construction is an issue of law for the court to decide. Markman v. Westview Instruments, Inc., 52 F.3d 967, 970-71 (Fed.Cir.1995) (en banc), *aff'd*, 517 U.S. 370, 116 S.Ct. 1384, 134 L.Ed.2d 577 (1996).

To ascertain the meaning of claims, the court looks to three primary sources: the claims, the specification, and the prosecution history. Markman, 52 F.3d at 979. Under the patent law, the specification must contain a written description of the invention that enables one of ordinary skill in the art to make and use the invention. A patent's claims must be read in view of the specification, of which they are a part. *Id*. For claim construction purposes, the description may act as a sort of dictionary, which explains the invention and may define terms used in the claims. *Id*. "One purpose for examining the specification is to determine if the patentee has limited the scope of the claims." Watts v. XL Sys., Inc., 232 F.3d 877, 882 (Fed.Cir.2000).

Nonetheless, it is the function of the claims, not the specification, to set forth the limits of the patentee's claims. Otherwise, there would be no need for claims. SRI Int'l v. Matsushita Elec. Corp., 775 F.2d 1107, 1121 (Fed.Cir.1985) (en banc). The patentee is free to be his own lexicographer, but any special definition given to a word must be clearly set forth in the specification. Intellicall, Inc. v. Phonometrics, 952 F.2d 1384, 1388 (Fed.Cir.1992). And, although the specification may indicate that certain embodiments are preferred, particular embodiments appearing in the specification will not be read into the claims when the claim language is broader than the embodiments. Electro Med. Sys., S.A. v. Cooper Life Sciences, Inc., 34 F.3d 1048, 1054 (Fed.Cir.1994).

To assess the ordinary meaning of terms used in a patent claim, a court may properly rely on dictionary definitions. The Federal Circuit has noted that "[i]t has long been recognized in the precedent of our predecessor court, the Court of Customs and Patent Appeals, that dictionaries, encyclopedias and treatises are particularly useful resources to assist the court in determining the ordinary and customary meaning of claim terms." Texas Digital Sys.,. Inc. v. Telegenix, Inc., 308 F.3d 1193, 1202 (Fed.Cir.2002). The court reasoned that such sources are objective resources that serve as reliable sources of information on the established meanings that would have been attributed to the terms of the claims by those of skill in the art. Id. at 1202-03. According to the court, dictionaries, encyclopedias, and treatises "constitute unbiased reflections of common understanding not influenced by expert testimony or events subsequent to the fixing of the intrinsic record by the grant of the patent, not colored by the motives of the parties, and not inspired by litigation." Id. at 1203. Bearing these standards in mind, the court now turns to the task of construing the claims in this case.

## III. Discussion

### A. Disputed terms in the '864 patent FN2

FN2. In its response brief, Lucent failed to provide proposed constructions of 19 disputed terms. The court therefore construes these terms consistent with their ordinary meanings as set forth in Foundry's opening claim construction brief.

### 1. Communication platform

The court is persuaded that Judge Breyer's construction of "communication platform" in the Nortel case is correct. Accordingly, the court construes "communication platform" to mean "a general purpose computer system that operates under program control."

### 2. Coupled

This court has consistently construed the term "coupled" to mean "directly or indirectly connected." Accordingly, the court adopts Lucent's construction of this term.

### 3. Network/ networked/ networking

Several claims of the '864 patent recite the terms "network," "networked," and "networking." Foundry urges the court to adopt the ordinary meanings of the disputed terms. Lucent, on the other hand, contends that "network" should be construed to mean "a series of interconnected communication devices that use a single communication protocol." The court finds that Lucent's proposed construction, which requires the use of "a single communication protocol," is too limiting. The court therefore construes "network," "networked," and "networking," consistently with their ordinary meaning-"a series of points interconnected by communication channels." *See* IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed.1997).

### 4. Voice communication module

The court is persuaded that Judge Breyer's construction of "voice communication module" in the Nortel case is correct. Accordingly, the court construes "voice communication module" to mean "a module that enables a communication platform to provide voice-over-IP calls."

### 5. Said private branch exchange services including providing substantially real-time voice communications

After considering the submissions of the parties, the court concludes that this phrase requires no construction.

### 6. Request(s)/private branch exchange service requests

Several of the claims of the '864 patent recite the terms "request(s)" and "private branch exchange service requests." Foundry contends that only the term "request(s)" needs to be construed because the parties agree on the meaning of "private branch exchange services." Thus, Foundry submits that "request(s)" should be construed in accordance with its ordinary meaning. Lucent argues that both "request(s)" and "private branch exchange service requests" should be construed to mean "control signals requesting the initiation of private

branch exchange services."

After considering the language of the claims, the court concludes that Foundry is correct. Lucent's proposed construction of "request(s)" does not make sense in the context of all the claims in which the term appears. For instance, claim 53 recites "a request sent through said first network by providing telecommunication services that correspond to said request." Further, claim 70 recites "providing telecommunication services in response to a request ..." As will be discussed below, "telecommunication services" are not limited to "private branch exchange services." Thus, in the context of these claims, Lucent's definition would improperly limit the claims. The court therefore construes "request(s)" consistent with its ordinary meaning— "a command, generated by a requester, to initiate an action on a responder." *See* IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed.1997). Accordingly, the court construes "private branch exchange service requests" to mean "a command, generated by a requester, to initiate private branch exchange services."

## 7. Private branch exchange network

Foundry argues that "private branch exchange network" should be construed to mean "a communication network that enables private branch exchange services." Lucent, on the other hand, submits that the disputed phrase should be construed to mean "a telephone exchange *on the user's premises* providing a switching facility for telephone lines within the premises and access to the public telephone network and the extension lines and attached telephones." (emphasis added) At issue here is the meaning of the phrase "private branch exchange." After considering the submissions and arguments of counsel on this point, the court construes "private branch exchange network" to mean "a private telecommunications exchange network that includes access to a public telecommunications exchange. It may be on the user's premises and may provide a switching facility for telephones on extension lines within the premises and access to the public telephone network." *See* IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed.1997).

## 8. Memory store

With respect to the term "memory store," Foundry contends that it should be construed in accordance with its ordinary meaning. Lucent, on the other hand, argues that "memory store" should be construed to mean "a predetermined location in the internal memory of a computer." After considering the claims and the submissions of counsel, the court concludes that "memory store" is not limited to "a predetermined location" of a computer's internal memory. The court therefore construes "memory store" consistent with the ordinary meanings of "memory" and "storage" "a section used primarily for storing information. It includes all of the addressable storage in a processing unit and other internal storage that is used to execute instructions." *See* IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed.1997).

## 9. Interactive voice prompting

Foundry submits that "interactive voice prompting" does not require construction. Lucent, however, argues that "interactive voice prompting" should be construed to mean "audible prompts provided by a caller by the system which describe and solicit control inputs for utilizing PBX services." In support of its proposed construction, Lucent relies on a portion of the specification which provides as follows: "[I]t would be desirable to provide a telecommunication platform and network that provides voice prompting to a user, enabling the user to perform network services such as voice communication simply by following a voice prompt rather than by memorizing complex keystroke sequences." '864 patent, col. 1, ll-51-56.

The court concludes that the specification does not support limiting "interactive voice prompting" to prompts that "describe and solicit control inputs for utilizing PBX services." In fact, the specification provides that voice prompting enables the user to perform network services such as voice communication. Accordingly, the court construes "interactive voice prompting" to mean "audible prompts provided to a user that enable the user to perform network services." *See* '864 patent, col. 1, ll. 51-52.

## 10. Status signal

With respect to the term "status signal," Foundry contends that the term does not require construction. Lucent submits that "status signal" should be construed to mean "a signal providing information regarding the response of the target telephone to the call such as ring-no-answer, busy, or live answer." After considering the parties' submissions, the court construes "status signal" to mean "a signal that provides the status of a telephone call such as ring-no-answer, busy, or live answer." *See* '864 patent, col. 5, ll. 22-24.

## 11. Application Program Interface (API) calls

The parties dispute the meaning of "Application Program Interface (API) calls." Foundry asserts that the ordinary meaning of "Application Program Interface (API) calls" is "a set of formalized software calls that can be referenced by an application program to access underlying services." On the other hand, Lucent submits that "Application Program Interface (API) calls" should be construed to mean "a set of formalized software calls that can be referenced by an application program to access underlying network services." The court adopts Foundry's definition and construes "Application Program Interface (API) calls" accordingly.

## 12. Call type

After considering the submissions of counsel, the court concludes that "call type" does not require construction.

## 13. Telephone network interface

The parties dispute the meaning of the term "telephone network interface." Foundry contends that the ordinary meaning of the term "interface" is "a shared boundary." Lucent argues, however, that "telephone network interface" should be construed to mean "a physical connection for communicating with a telephone network." At issue is whether an "interface" requires a physical connection. The court construes "telephone network interface" to mean "a shared boundary between a telephone network and another system or device across which information is passed." *See* IEEE Standard Dictionary of Electrical and Electronics Terms (6th ed.1997).

## 14. Switched wide area network

The parties do not dispute the meaning of the term "switched." Foundry submits that a "wide area network" is defined as "a communications network designed for large geographic areas." Lucent urges the court to construe "switched wide area network" to mean "a switched data network that covers a large geographic area." After considering the submissions of counsel, the court construes "switched wide area network" to mean "a switched communications network designed for large geographic areas."

## 15. Voice communication commands

After considering the submissions of counsel, the court concludes that "voice communication commands" does not require construction.

## 16. Communication bus

With respect to the term "communication bus," Foundry argues that the term should be given its ordinary meaning. Foundry submits that the ordinary meaning of "communication bus" is "a communication medium to which two or more devices are connected and over which information is transferred between them." Lucent contends, however, that "communication bus" should be construed to mean "a signal line or a set of lines used by an interface system to connect a number of devices and to transfer data." The court construes "communication bus" consistent with the ordinary meanings of the term "bus"-"a signal line or set of lines that may be used by an interface system to connect a number of devices and to transfer information." *See* Newton's Telecom Dictionary (1996); *see also* Texas Digital Sys., Inc. v. Telegenix, Inc., 308 F.3d 1193, 1203 (Fed.Cir.2002). FN3

FN3. "If more than one dictionary definition is consistent with the use of the words in the intrinsic record, the claim terms may be construed to encompass all such consistent meanings."

## 17. Telecommunication services

The parties dispute the meaning of the term "telecommunication services." Foundry proposes that "telecommunication services" should be construed to mean "the transmission of information from one point to another." Lucent, for its part, urges the court to construe "telecommunication services" to mean "services typically provided on telecommunication networks, including voice communications, private branch exchange services, multimedia messaging, and information services." The court adopts Lucent's definition of "telecommunication services" and construes the term accordingly.

## 18. Call progress analysis (to obtain a status request)

"Call progress analysis" is expressly defined in the specification of the '864 patent. "The specification acts as a dictionary when it expressly defines terms used in the claims or when it defines terms by implication." Vitrionics Corp. v. Conceptronic, Inc., 90 F.3d 1576, 1582 (Fed.Cir.1996). Accordingly, the court construes "call progress analysis (to obtain a status request)" to mean "a process by which a communication platform determines the status of a telephone line after making an outbound telephone call or after establishing a connection with another party (to obtain a status request)." *See* 864 patent, col. 10, ll. 21-24.

## 19. Prompting for a destination telephone number

The parties agree that "destination telephone number" does not require construction; however, they dispute the meaning of the term "prompting." Foundry urges the court to adopt the ordinary meaning of the verb "to prompt," which is defined as "to move to action." Lucent argues that "prompting" should be construed to mean "providing instructions to the caller to enter the telephone number the caller wishes to call." After considering the submissions of counsel and the intrinsic record, the court construes "prompting for a destination telephone number" to mean "requesting the entry of a destination telephone number."

## 20. Voice communication link

With respect to the term "voice communication link," Foundry asserts that "voice communication" is understood by one of ordinary skill in the art. Foundry further submits that "link" is generally defined as "a connecting structure." Lucent, on the other hand, argues that "voice communication link" should be construed consistently with the definition of "voice-over-IP-link" contained in the specification of the '864 patent. The court does not agree with Lucent's position. As it appears from reading the claims and the specification, a "voice over-IP-link" is a type of "voice communication link." Thus, the term "voice communication link" is broader than the term "voice-over-IP-link." The court therefore construes "voice communication link" to mean "a connecting structure capable of supporting voice communication."

**21. Detecting private branch exchange service requests and subsequently exchanging a plurality of signals between said first communication platform and said destination communication platform for executing said private branch exchange services in response to private branch exchange service requests**

After considering the submissions of the parties, the court concludes that this phrase requires no construction other than that previously provided for several of the terms contained in the phrase.

**22. Detecting private branch exchange service requests on said first communication platform and subsequently exchanging a plurality of signals between said first communication platform and said destination communication platform for executing said private branch exchange services in response to said private branch exchange service requests**

For essentially the reasons set forth with respect to the preceding phrase, the court concludes that this phrase requires no construction.

**23. Means for responding to control signals generated by private branch exchange equipment managing said private branch exchange network**

This claim limitation appears in dependent claim 36. Claim 36 depends from claim 35 which, in turn, depends from apparatus claim 32. The parties agree that the recited function is "responding to control signals generated by private branch exchange equipment managing said private branch exchange network" and that it does not require construction. The parties disagree, however, as to what structure corresponds to the recited function.

With respect to this function (as well as for all of the means plus function limitations), Foundry contends that the corresponding structure is "communication platform 2 and its equivalents." Lucent, on the other hand, argues for a more narrow identification of the corresponding structure and suggests that the structure is "a messaging and telephone line unit from Dialogic Corporation of Parsippany, NJ, having a model number D41ESC (Dialogic board) which supports SCSA (Signal Computing System Architecture) time slot routing and software to control the messaging and line unit using API functions."

A review of the patent specification discloses two different ways that the communication platform may be structured to receive and respond to control signals received from the PBX equipment. Figure 1C depicts control signals being received by the communication platform via the message and telephone line unit 39 and deciphered and acted on by a set of API program modules, the unit and the modules together referred to as the PBX interface 38. Alternatively, the patent in Figure 1D depicts control signal being received from larger PBX systems or central office switches over an RS-232 line via an RS-232 serial interface, with corresponding voice data transmitted over a separate transmission line. '864 Col. 7, ll. 51-55. Once the

signals are received in this alternative embodiment, they are acted upon by the API program modules as in the first embodiment. It appears from the pertinent portions of the description that the interfaces and the API program modules work together to perform the function of responding to the control signals generated by the PBX equipment. Accordingly, the court identifies the corresponding structure as the message and telephone line unit 39 depicted in Figure 1C and described in the specification at Col. 5, lines 52-56 together with the API program modules depicted in Figure 1C and described in the specification at Col. 5, lines 56-60. Alternative structure is shown in Figure 1D as the RS-232 serial interface 56 and the associated API functions as described in the specification at Col. 7, lines 55-59. FN4

FN4. Per the statute, the claim covers the corresponding structure identified by the court and equivalents.

**24. Means for forwarding an incoming call from said private branch exchange network to a second communication platform in response to control signals describing said incoming call as a forwarded call**

This claim term appears in dependent claim 37, which depends from claim 36, discussed above. The specification describes an apparatus including a communications platform which, in response to control signals generated by PBX equipment, forwards the call to a second communication platform. The parties agree that the court need only identify the corresponding structure.

The specification of the '864 patent provides that "communication platform 2 is integrated with a voice communication module 8 so that telephone calls received from a telephone network, such as from PSTN 6 or from PBX network 26 can be switched and transmitted to another communication platform through switched backbone." '864 patent, col. 4, ll. 35-39. The patent describes voice communications module 8 as having a messaging and telephone line unit 9 which supports SCSA time slot routing and a programming interface. '864 Patent, col. 4, ll. 35-48. The corresponding structure is voice communication module 8.

**25. Means for forwarding an incoming call from an extension within said private branch exchange network to a remote target telephone number serviced by a second communication platform in response to control signals describing said incoming call as a forwarded call**

This limitation appears in dependent claim 40. The feature added in this claim is the ability to forward an incoming call from an extension within the PBX to a target telephone number in response to control signals describing the incoming call as a forwarded call with the added limitation that the target telephone number must be obtained from a configuration profile corresponding to the extension. For essentially the reasons set forth in the preceding discussion, the court is persuaded that the means for forwarding is the voice communications module 8.

**26. Means for responding to control signals generated by a central office switch managing said public switched telephone network**

This term appears in claim 42 of the '864 patent. The pertinent portion of the specification explains that "[t]he present invention in the alternative embodiment, is also capable of supporting large PBX equipment 50 ( *or central office switch* ) which has a separate voice transmission line 52 and a separate control signal transmission line 54 for transmitting voice data and control signals." '864 patent, col. 7, ll. 38-41 (emphasis added). With respect to this embodiment, the specification states that voice data is passed between the PBX equipment 50 (or central office switch) and communications platform 2 through voice transmission line 52,

while control signals are transferred through control signal transmission line 54 such as a RS-232 serial transmission line. '864 patent, col. 7, ll. 43-47. The structure disclosed in the specification for responding to these control signals is the RS-232 interface depicted in Figure 1D and described in the specification at lines 55-59 together with the API program modules also set forth at the same location in the specification. '864 Patent, col. 7, ll. 55-59 ("The control signals 44 are received by communications platform 2 through a serial interface 56 and are then deciphered and acted upon by API functions, or equivalent means within communication platform 2").

## 27. Means for forwarding an incoming call from said public switched telephone network to a second communication platform in response to control signals describing said incoming call as a forwarded call

The corresponding structure disclosed in the specification is voice communications module 8. As noted above, the patent describes voice communications module 8 as having a messaging and telephone line unit 9 which supports SCSA time slot routing and a programming interface. '864 Patent, col. 4, ll. 35-48.

## 28. Means for forwarding an incoming call from a telephone within said public switched telephone network to a remote target telephone number serviced by a second communication platform in response to control signals describing said incoming call as a forwarded call

This limitation appears in dependent claim 46 and, like the limitation in claim 40, requires the forwarding of a call from the public switched telephone network to a remote target telephone number serviced by a second communication platform. For essentially the reasons stated in the discussion regarding claim 40, the court identifies the structure corresponding to the forwarding means limitation as the voice communications module 8.

## B. Disputed terms in the '131 patent

### 1. Host processor

The court adopts Judge Brewster's construction of "host processor" in the Gateway action. Accordingly, the court construes the term "host processor" to mean "a computer that communicates with one or more users to provide services such as transaction processing or database access."

### 2. Communicating with

After considering the arguments of counsel and the intrinsic record, the court concludes that the term "communicating with" requires no construction.

### 3. Terminal device

The court adopts Judge Brewster's construction of "terminal device" in the Gateway action. Accordingly, the court construes the term "terminal device" to mean "a computing device such as a data terminal, workstation, portable computer, or smart phone that enables a user to communicate with a host processor. It manages its associated display itself and manages its internal memory with the assistance of the host processor."

### 4. Assigning

After considering the arguments of counsel and the intrinsic record, the court construes "assigning" in accordance with its ordinary meaning. The term means "to fix or specify in correspondence or relationship." Webster's Ninth New Collegiate Dictionary (1991).

## 5. Identifier

The court adopts Judge Brewster's construction of "identifier" in the Gateway action. Accordingly, the court construes "identifier" to mean "a unique label that serves to distinctly identify each one of a plurality of input object types and, if any, each one of a plurality of group identifier types."

## 6. Plurality

The Federal Circuit has construed the term "plurality" to mean "at least two." *ResQNet.com v. Lansa,* Inc., 320 F.3d 1317, 1332 (Fed.Cir.2003); *see also* York Prods., Inc. v. Central Tractor Farm & Family Center, 99 F.3d 1568, 1575 (Fed.Cir.1996) (stating that "this term requires only at least two ridge members ..."). The court therefore construes the term "plurality" to mean "at least two" in both the '131 patent and the '864 patent.

## 7. Transmitting ... to said device

The court adopts a construction of "transmitting ... to said device" which is similar to the one adopted by Judge Brewster. The court construes this phrase to mean "transmitting information directly to the device without re-transmission of the information by an intermediate processor."

## 8. Object type(s)

The court is persuaded that the phrase "said plurality of object types" in claim 1(b) of the '131 patent refers as its antecedent basis to the phrase "plurality of input object types" recited in claim 1(a) of the patent. The court therefore rejects Foundry's contention that this claim is indefinite, but agrees with Foundry that the "object types" at issue be limited to "input object types."

E.D.Tex.,2005.
Foundry Networks v. Lucent Technologies, Inc.